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Citation for published version (APA):

Fennell, J. (2015). Reevaluating Combat Cohesion: The British Second Army in The Northwest Europe Campaign of the Second World War. In A. King (Ed.), *Frontline: Combat and Cohesion in the Twenty-First Century* (pp. 134-166). [7] Oxford University Press. <https://global.oup.com/academic/product/frontline-9780198719663?cc=gb&lang=en&>

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An edited version of this paper appeared in
Anthony King (ed.), *Frontline: Combat and Cohesion in the Twenty-First Century*
(Oxford: Oxford University Press, 2015).

This can be found here:

<http://ukcatalogue.oup.com/product/9780198719663.do>

Reevaluating Combat Cohesion:
The British Second Army in The Northwest Europe Campaign of the Second World
War.

© Dr Jonathan Fennell
Defence Studies Department,
King's College London

Abstract:

This paper explores the role of morale in the military strategic process and demonstrates, for the first time, how it is possible to construct a methodologically sound quantitative approach for assessing morale in an historical battle context (the British Army's progress through Northwest Europe in 1944/5). It proposes a functional conceptualisation of morale, which focuses its meaning and relevance on motivation and the willingness to act in a manner required by an authority or institution. These approaches, at least when applied to the Northwest Europe campaign, point to the need to reevaluate the dominant theories on combat cohesion. It is concluded that strategy, understood as an iterative multilevel process rather than a level of war or activity situated only as a bridge between national policy and tactics, lies at the heart of any understanding of combat cohesion.

Key Words:

Strategy; Morale; Motivation; Combat Cohesion; Quantitative Assessment; Multilevel Iterative Process; British Army; Second Army; Northwest Europe Campaign; Normandy Campaign.

Reevaluating Combat Cohesion:
The British Second Army in The Northwest Europe Campaign of the Second
World War.

Jonathan Fennell

As the United Kingdom's involvement in combat operations in Afghanistan comes to an end in 2014, it is appropriate that the contributors to this edited collection reflect upon the 13 years of fighting. Such reflection, however, is best situated within a broader context than the pressing military and political imperatives of the early twentyfirst century. Thus, this chapter aims to broaden the historical and conceptual perspective by building on the considerable body of research on the material and tactical underpinnings of successful military performance in the twentieth century and examining the role of morale. Indeed, Stephen Biddle has pointed to the need to give morale 'systematic theoretical attention'.¹ The chapter explores the conceptualisation of military morale and argues that morale remains ill defined, inconsistently used and poorly understood. It proposes that in order for the concept of morale to have appropriate explanatory value in a critical analysis of the past, particularly in a combat environment, it should be clearly differentiated from definitions associated solely or primarily with mood or group dynamics. A functional conceptualisation is, therefore, proposed which focuses its meaning and relevance on motivation and the willingness to act in a manner required by an authority or institution. The chapter then takes a step towards developing a methodologically sound quantitative approach to assessing morale in an historical battle context. It makes use of a diverse range of new and underused sources, from archives across the Commonwealth, to quantitatively

assess on a weekly basis the morale of British Second Army in the Northwest Europe Campaign of the Second World War. The chapter demonstrates, for the first time, how, at least in the context of the British experience in Northwest Europe, morale can be accurately and robustly quantified over the course of a campaign. These conceptual and methodological innovations facilitate an in-depth analysis of the complex web of interrelationships that shape military performance. The findings point to the need to reevaluate the dominant theories on combat cohesion and put strategy, understood as an iterative multilevel process rather than a level of war or activity situated only as a bridge between national policy and tactics, at the heart of any understanding of combat cohesion.

Combat Cohesion

Much has been written on and around the subject of combat cohesion in the twentieth century.² Anthony King's recent study, *The Combat Soldier*, has built upon this literature and offered a reconceptualisation of cohesion and a reinterpretation of the factors that influence cohesive military performance. King defines cohesion as the 'successful coordination of actions on the battlefield'; it refers to the ability of soldiers 'to act together and to achieve their mission in the face of the enemy'.³ Thus, King, like Sam C. Sarkesian,⁴ points to the connection between cohesion and successful or victorious military performance. This understanding of cohesion is subtly different to that propounded in other studies where cohesion incorporates a greater notion of efficiency.⁵ Allan R. Millet, Williamson Murray and Kenneth H. Watman argue that 'judgments on effectiveness should retain some sense of proportional cost and organizational process'. In their view, the German army in the

Second World War was more cohesive than its enemies because it converted national resources into fighting power in a more efficient manner. The fact that Germany lost the war was irrelevant.⁶

This chapter embraces the King definition of cohesion. While efficient military performance is certainly desirable, it is only one aspect of the far greater endeavour of using military means in the pursuit of national policy. There is a real danger that military practitioners and scholars, by lauding the efficient performance of military organisations such as the Wehrmacht, lose sight of the purpose of war and the fundamental art that governs its use, strategy.

In light of this understanding of cohesion, it is possible to identify three broad trends, or ‘metanarratives’, in the literature on cohesion in Western Armies in the twentieth century.⁷ The first, which can be referred to as the ‘brute force narrative’, stresses the importance of firepower and materiel to successful combat performance. In the First World War, these ideas were captured and expressed in the attritional warfare that developed on the western front. Sir John French, the British Commander-in-Chief, wrote in January 1915 that

Breaking through the enemy’s lines is largely a question of expenditure of high explosive ammunition. If sufficient ammunition is forthcoming, a way can be blasted through the line. If the attempt fails, it shows . . . that insufficient ammunition has been expended, i.e. either more guns must be brought up, or the allowance of ammunition per gun increased.⁸

One of the more influential authors on the subject during and after the Second World War was S.L.A. Marshall. He contended that what was needed in battle was ‘more

and better fire'.⁹ He argued that 'fundamentally fire wins wars and that every other aspect of operations is important only in the measure that it contributes to this grand object'.¹⁰ His ideas became dogma in the US Army, and there was, as Hew Strachan has pointed out, a clear trajectory from the publication of *Men Against Fire* to the performance of the US Army in the wars that followed, such as in Vietnam.¹¹ In the decades following the Second World War, the 'brute force narrative' gained credence. Widely-read historical studies, by Max Hastings, John Ellis and Carlo D'Este, among others, stressed the material and technological underpinnings of successful combat performance:¹²

In the broadest sense . . . it was economic might and productive capacity that determined the outcome of the Second World War. In the final analysis, once America and Russia had been drawn into the war and once each had blocked its opponents' first mad rush, then there was absolutely no chance that the Axis powers could salvage even a negotiated peace . . . a Reich that would wage Blitzkrieg with only 47,000 tanks against its enemy's 227,000, 116,000 guns against 915,000 and 350,000 trucks against 3,000,000, or a would-be maritime empire that aims to maintain its grasp by producing only 13 aircraft carriers against its opponent's 137, has not much real chance of imposing its will.¹³

More recently, a vein of scholarship has stressed the importance of conceptual factors in combat cohesion.¹⁴ These works have emphasised the influence of doctrine and tactics on effective combat performance. In fact, according to Stephen Biddle, the effects of technology and materiel are 'secondary to force employment'.¹⁵ Biddle has presented evidence to suggest that one method in particular, the modern system

(based on cover, concealment, dispersion, suppression, combined arms and independent small-unit manoeuvre at the tactical level and depth, reserves and differential concentration at the operational level),¹⁶ ‘broke the trench stalemate in 1918 and defined the standard for successful military operations throughout the post-1918 era’.¹⁷ The ‘tactics narrative’ does not reject the significance of material and technological preponderance, but argues that victory and defeat result from the way material and technology are employed on the battlefield. This approach to understanding cohesion places a considerable weight on the institutions and individuals whose responsibility it is to intellectualise, imagine and resolve the problems of battle performance.

Anthony King has outlined a third approach to understanding combat cohesion, a ‘morale narrative’. King argues, building on the work of authors such as Ardant du Picq, John Baynes and John Keegan, that in the context of mass conscript armies in the twentieth century, tactics (usually enshrined in doctrine) were not central to successful combat performance. Although ‘western powers had developed refined infantry doctrine’, their platoons were ‘normally unable to execute [it] in combat, despite expectations that they would do so’. This was due to the fact that ‘the vast majority of infantry was poorly trained’. In the absence of adequate training, success in battle was the product of a ‘mass-individual dialectic’ aided by supporting fire and, above all, artillery. Either the highly motivated group charged the enemy or the highly motivated individual (usually an officer or N.C.O.) assaulted the enemy for the group. Success or failure was, therefore, contingent on the willingness of the soldier to close with and kill, wound or capture the enemy. Success was dependent on morale.¹⁸

The 'morale narrative' also recognises the significance of materiel in war. It emphasises the role played by massed firepower in suppressing enemy resistance to allow attacking forces to cross the fireswept zone. It constitutes, in many ways, an important counterpoint to the dominant approach of historians and social scientists interested in the study of war. It builds on a 'Tolstoyan' understanding of combat (or history for that matter), that battles (events) are not merely the execution of a general's or leader's concept, but rather the product of 'the grubby actions of small groups of men, often confused and frightened'.¹⁹ However, unlike the 'brute force' and 'tactics' narratives, the 'morale narrative' has received little 'theoretical attention'.²⁰ This may be because any study of morale faces somewhat unique conceptual and methodological problems in that scholars and military practitioners struggle to agree on a workable definition of morale or a way to meaningfully measure it. These shortcomings have potentially profound implications for the study of combat cohesion. First, as Michael Handell has argued, there is a danger that historians, social scientists and military practitioners 'focus on that which can be measured' and ignore 'the critical but more elusive factor of will'.²¹ Second, assessments of morale based on too little evidence can misrepresent patterns of events and skew understanding of the past, with serious implications for present and future decision-making.

Defining Morale

A number of definitions of the term morale have been proposed in the literature. Robert Guion, Reuvan Gal and Frederick Manning, Stephan Motowidlo *et al.* and Thomas Britt and James Dickinson have broadly claimed that morale refers to various affective states, such as contentment and happiness, and group dynamics.²² Although

not without foundation, there are major problems with approaches that identify affective states and/or group dynamics as central to morale. Specifically, there is much evidence to suggest that troops can experience positive affective states while also behaving in manners that are completely contrary to the interests of the military establishment. For instance, a combatant might feel ‘happy’, ‘satisfied’ or ‘optimistic’ due to the fact that he has run away and is now safe from harm. Similarly, as Chiara Ruffa’s chapter illustrates, strong group bonds and ‘high morale’ can undermine positive military performance, where e.g. a soldier might stop to aid a wounded comrade in spite of orders to press the attack.²³ At the same time, group desertions and mutiny can evidence small group bonds, yet they are clearly actions contrary to the needs of the military institution.²⁴ For instance, in Vietnam, the importance of group survival often outweighed the need to complete assigned tasks.²⁵ Definitions of morale based on affective states or group dynamics can lead, therefore, to the paradox, demonstrated in all these cases, of high morale leading directly to poor military performance.

Motivation is a further aspect of morale that requires consideration, but it is important to stress that motivation does not require the individual or group to be positive (or enthusiastic, as Britt and Dickinson suggest) about assigned objectives. Combatants can be highly motivated to carry out tasks that they don’t necessarily want to engage with, that they are not hopeful, optimistic or confident will succeed, due to the fact that they are disciplined or even coerced into action. As John Keegan has pointed out,

“Kill or be killed” is the logic of battle – to which military law adds the rider, “Risk being killed by the enemy or else risk being killed by your own provost-marshal”.²⁶

This coercive dynamic (or ‘negative’ motivation), Keegan claims, has been present in warfare throughout the ages.²⁷ Soldiers have to accept ‘the basic philosophy governing human relationships within an army’,²⁸ said S.L.A. Marshall, or take what Samuel A. Stouffer *et al* referred to as ‘the institutionally sanctioned consequences’.²⁹ Brigadier A.B. McPherson, who, in 1950, compiled the British War Office monograph on discipline, wrote that ‘in the inculcation of “morale” discipline is an indispensable factor. Self-respect, self-control and obedience to authority, which go hand in hand in training in discipline, are sturdy elements also in the foundation of morale’.³⁰

There is evidence, then, to suggest that military professionals link morale closely with motivation but explicitly distance it from associations with positive affective states or the group. For example, General Sir Bernard Law Montgomery, in a paper he wrote on the subject in April 1946, defined morale as ‘endurance and courage in supporting fatigue and danger . . . the quality which makes men go forward in an attack and hold their ground in defence’.³¹ He stated categorically that high morale ‘is not contentment or satisfaction’ or ‘happiness’. Happiness, according to Montgomery, ‘may be a contributory factor in the maintenance of morale over a long period, but it is no more than that. A man can be unhappy but can still, regularly and without complaining, advance and defend’.³² He saw group dynamics in very much the same light.³³ Morale, according to Montgomery, is clearly like an overall

causative influence on a soldier's conduct; indeed some psychologists use the term 'motivation' in similar contexts.³⁴

Following the broad thrust of Montgomery's approach, morale is here defined as the willingness of an individual or group to engage in an action required by an authority or institution; this willingness may be engendered by a positive desire for action and/or by the discipline to accept orders to take such action. The degree of morale of an individual or group relates to the extent of their willingness or discipline to act, or their determination to see an action through. This is the broad approach to the conceptualisation of morale that is taken in this chapter. This definition does not conflate morale with emotion or interpersonal loyalty, although it excludes neither as potential sources of motivation. Instead it recognises that military institutions require their personnel, first and foremost, to be willing to carry out orders. If troops are willing to carry out orders, any military organisation will have a chance of success irrespective of the mood of their men and women or the strength of primary group bonds.³⁵ Indeed, as King discusses in his chapter on discipline, it seems almost certain that the severe even fanatical discipline of the Wehrmacht positively encouraged German soldiers to fight, even though they can scarcely have been happy about the sanctions with which they were constantly threatened.

Assessment of Morale

There are relatively few reliable primary or secondary sources that assess levels of morale in armies. Those that do, such as the works of Morris Janowitz and Edward Shils, S.L.A. Marshall and Samuel A. Stouffer et. al. in the Second World War and Leonard Wong et. al. in the 2003 Iraq War, make extensive use of contemporaneously recorded attitudinal surveys. These studies typically link morale with motivation, for

example, S.L.A. Marshall contended that morale had ‘no meaning’ unless it was understood as ‘the body of thought’ that ‘disposes the thinker to high endeavor or toward failure’,³⁶ while Wong et. al. explicitly engaged with the problem of ‘combat motivation’.³⁷ Nevertheless, these studies are sufficiently wide ranging that they can also be used to assess morale as a positive affective state or aspect of group dynamics. They provide scholars with valuable attitudinal information for military organisations at particular places and periods of time. However, their findings are often highly contextualised; their relevance, therefore, to other combatant nations, wars and environments must be understood in this light.

In the majority of cases where attitudinal surveys have not taken place, scholars attempting to assess morale are typically dependent on sources such as personal recollections and memoirs. These sources use varying conceptualisations of morale and also suffer from serious methodological shortcomings, not least the fallibility of individuals’ memories, especially where interviews take place decades after the event, and the impact of prevailing cultural and social interpretations of the meaning of events on the recollections of historical actors. Contemporaneously recorded diaries or letters are more reliable as historical sources, but, again, they lack consistent definitional clarity and it is often difficult to amass a representative sample of such sources for an army. Recent studies, such as Alexander Watson’s *Enduring the Great War*, this author’s *Combat and Morale in the North African Campaign* and Jonathan Boff’s *Winning and Losing on the Western Front* have tried to circumvent this problem by making use of newly discovered or underused official sources, such as censorship summaries of soldiers’ mail and morale reports.³⁸ Such sources cover morale widely and deeply and tend to express views that represent a considerable body of opinion among troops. They are so extensive and detailed that the appropriate

definitional focus can relatively easily be mined within them. However, again, these sources are available in only a minority of cases, and, thus, may be limited as a tool to assess morale in armies across the twentieth century.

In addition to the use of attitudinal surveys, combatant letters and diaries, censorship summaries and morale reports, military professionals (particularly commanders and medical officers), theorists and scholars have also used rates of sickness, battle exhaustion, desertion, absence without leave (AWOL) and self-inflicted wounds (SIW) in units as a useful proxy for morale. These metrics do not assess morale as an affective state or as an aspect of group dynamics but accurately, albeit indirectly, assess the willingness of troops to engage in actions required by the authority or institution. In this regard, the functional definition used here not only clarifies the meaning of morale but also facilitates its measurement. Militaries tend to record and keep this kind of data, and, therefore, this method may prove generally useful to assess morale across armies and across time periods. Historians of the British and Commonwealth Armies in the Second World War have been particularly proactive in utilising these sources as a tool to assess morale. Indeed, both David French and John Buckley have used battle exhaustion, desertion, AWOL and SIW statistics to argue that perceptions of weakness in British morale in the Normandy campaign have been misplaced and misguided.³⁹ This author has also used sickness, battle exhaustion, desertion and AWOL and surrender statistics to plot a morale crisis and recovery in Eighth Army in the North African campaign in 1942.⁴⁰

There is a significant body of contemporaneous evidence that confirms the use of this approach in the assessment of morale. F.A.E. Crew, the Official Historian of the British Army Medical Services in the Northwest Europe campaign of the Second World War, wrote that sickness in the campaign had been kept low in no small

measure due to morale. The fact that the campaign had lasted less than a year, been 'filled with victory' and that 'no deepening gloom born of disaster' had set in played a role.⁴¹ Montgomery, the Commander of 21st Army Group, of which Second Army was a part, was emphatic that the 'truly remarkable success of the medical organisation' in Northwest Europe had been built upon two factors: the quality of the manpower available and the morale of the Army. Montgomery noted the 'exhilarating effect of success' on 'reducing the rates of sickness' in Second Army. It was quite clear to him that 'the medical state' of the army had not been 'dependent on the doctors alone'. Their efforts had been 'immeasurably facilitated when morale' had been 'at its highest'.⁴²

The number of battle exhaustion cases in a unit was also seen as an accurate indicator of morale. Major D.J. Watterson, the psychiatrist attached to Second Army in Normandy, wrote in his report for June 1944 that the number of exhaustion cases in a unit was an excellent 'index to that unit's quality of men and of its wellbeing and morale'. In fact, he said, 'it is as good a guide to the unit's state of mental health as is the temperature chart in a case of fever'.⁴³ A similar view was present in the Canadian Army. Major R.A. Gregory, Neuro-psychiatrist to 3 Canadian Infantry Division, wrote during the battle of the Scheldt in October 1944 that 'there was one thing of note among all troops admitted for exhaustion, [that is] lack of morale or lack of volition to carry on'. The psychiatrist's work, he wrote, 'is first to advise on things which tend to lower morale and increase the incidence [of] exhaustion'.⁴⁴

According to F.A.E. Crew, there was a close association between battle exhaustion and certain military crimes, such as desertion, AWOL and SIW.⁴⁵ In fact, he argued that these issues could be viewed as two sides of the same coin. 'Whereas some men went sick and were evacuated, others suffering from much the same

condition ran away, were charged and awarded penal servitude. The psychological escape of the former and the physical escape of the latter were expressions of the same mechanism'.⁴⁶ A report produced in June 1945 on "'Soldiers Under Sentence" for Such Offences as Desertion, Cowardice, Mutiny etc., Whose Cases Have Been Reviewed in British Second Army' lends support to this contention.⁴⁷ During the period 17 November 1944 to 22 January 1945, 596 men who had committed offences in June, July and August 1944 and served three months of their sentences were interviewed with the intention of ascertaining their suitability for further service in the Army. The 'great majority of the prisoners' were found to be 'good personality types, only too anxious to be given the opportunity to redeem their characters'. Their crimes were, according to the report, 'in a large majority of cases not premeditated, but occurred on the "spur of the moment" when under great stress'. The men gave a number of reasons for their behaviour, most of which are known influences on morale in battle:

"I was browned off at the time", "I was very tired, we got no sleep", "I was worried about bad news from home" . . . Resentment at being transferred to infantry after long service in other arms of the service was often evident. Here . . . the plea put forward as an excuse for behaviour was "lack of training" and in many cases . . . recent reinforcements . . . had obviously not been long enough with their units to develop that group spirit and friendship which is the best bond to security.

It is conceivable, of course, that the inmates were telling the military authorities what they wanted to hear. Nevertheless, the conclusions of the report are supported by evidence from other theatres during the war and the behaviour of the men themselves

once they returned to combat.⁴⁸ Of the 596 men who had their cases reviewed, 435, or 73 per cent, were returned to full duties in the line.⁴⁹ By the end of the war, these men had seen a number of months of active duty, the majority taking part in the Reichswald Forest battle, which, according to the report, was 'more grim' than the period in which the men had committed their offences. Overall, almost three quarters of the men returned to full duties in the line gave satisfactory and meaningful military service. The report concluded that 'the percentage of "real bad eggs" has been small' and that 'the outstanding impression gained' was 'the great similarity there exists between many of the cases reviewed and those that are referred through medical channels for psychiatric opinion'. The 'natural conclusion' to be made from this study was, therefore, 'that the majority of deserters' were not 'true cowards', and, in fact, that issues relating to morale, just as in cases of battle exhaustion, had been the key driver in the soldiers' behaviour.⁵⁰

Morale, according to Q.V.B. Wallace, the Deputy Director of Medical Services 1 Corps, Second Army, was also central to keeping instances of SIW in an army at a low level. He wrote that the welfare of the soldier, leave, the provision of newspapers, the speed of delivery of letters etc. had all 'been much more thoroughly planned for' in Northwest Europe and this 'had a very obvious effect on morale', which, in turn, affected SIW.⁵¹ Lieutenant-Colonel A.T.A. Browne, who was given the task of investigating the causes of SIW during the Normandy campaign, painted a very similar picture. He argued that SIW were the product of the interplay of five factors: 1) The cultural and social conditions prevalent at the time; 2) The appalling physical conditions experienced on the battlefields of Normandy; 3) The heavy casualties; 4) Poor quality training and manpower selection; 5) The need for rest and recuperation.⁵² All of these factors were key influences on morale.⁵³

Thus, an examination of historical sources suggests that morale affects and is affected by rates of sickness, battle exhaustion, desertion, AWOL and SIW. It may additionally be suggested that the relationship between these factors is so close that a knowledge of rates of sickness, battle exhaustion, desertion, AWOL and SIW can provide a useful indicator of the levels of morale at different stages of a campaign. The extent and strength of these associations may be explored by use of quantitative approaches. This requires a systematic assessment of available primary sources, such as censorship summaries of soldiers' mail, to describe and 'quantify' levels of morale (through the use of a numerical morale scale) as well as the tabulation of rates of sickness, battle exhaustion, desertion, AWOL and SIW. If the tabulated rates are indeed indicators of morale, they should, broadly speaking, fluctuate along the lines of the shifts in morale levels as encapsulated in the morale scale.

Quantitative Assessment of Morale

In order to carry out this quantitative assessment, the case of British Second Army in the Northwest Europe Campaign of the Second World War was explored. Thirty-six bi-weekly censorship summaries, covering the period between 4 April 1944 and 15 October 1945, were found at Library and Archives Canada and the Directorate of History and Heritage, Ottawa. These summaries were compiled from 1,494,479 letters sent by officers, NCOs and other ranks in the British Army and have never before, as far as this author is aware, been used in an historical study. These summaries proved a most useful source for the building of the morale scale. Each summary was based on the censorship of an average of over 40,000 letters, and, thus, gave a reliable appraisal of changes in morale in Second Army. A typical modern national opinion survey uses a sample of 1,100 to give an error margin of ± 3 percent; if a similar methodology

were used on a sample of 40,000, the error would be tiny (± 0.5 percent). The censorship reports used a fairly consistent language and usually described the level of morale in a summary at the start. In order to turn a qualitative assessment of morale into a scale, all typical descriptions of morale were first graded from the 'best' to the 'worst' morale, taking into account the definitional approach being used here. The different descriptions were then put in categories of meaning that were as far as possible of equal intervals apart. Then each description of morale was given a score. Where morale was described as 'excellent', it was awarded a score of 3. 'High' morale was given a score of 2 and 'good' morale was scored 1. 'Satisfactory' morale was given a score of 0 (neither positive or negative). Morale described as 'severely tried' was scored -1, while 'low' and 'very low' morale were scored -2 and -3 respectively.⁵⁴

Statistics relating to weekly levels of sickness, battle exhaustion and SIW were found in the War Diaries of the Deputy Director of Medical Services, Second Army.⁵⁵ The War Diaries reported sick admissions per 1,000 per week (which also included battle exhaustion cases) in the 'Weekly Hygiene Reports' for Second Army and the incidence of battle exhaustion per 1,000 for each weekly period in the 'Monthly Hygiene Reports' for Second Army.⁵⁶ The number of battle exhaustion cases was calculated by applying the battle exhaustion rate per 1,000 to the strength of Second Army (which was provided in each 'Weekly Hygiene Report'). The overall weekly sick number was also computed in this manner. By then subtracting the weekly battle exhaustion number from the overall weekly sick number, thus obtained, it was possible to calculate the true sick number (i.e. without battle exhaustion). The weekly figures for SIW were outlined in a 'Report on Surgery in Second Army in the Northwest Europe Campaign, 1944-45'.⁵⁷ Monthly convictions by Courts Martial for

desertion and AWOL were recorded in the ‘Administrative History of 21st Army Group’ and in the War Diaries of the Deputy Judge Advocate General, 21st Army Group.⁵⁸ While some of these figures have been presented before,⁵⁹ this chapter offers, for the first time, as far as this author is aware, a comprehensive picture of the number of sick, battle exhaustion, desertion and AWOL and SIW in Second Army during the Northwest Europe campaign of the Second World War (see Tables 8.1 and 8.2).

Table 8.1: Strength of the Fighting Portion of Second Army plus Weekly Admissions for Casualties (Cas)*, Sick, Battle Exhaustion (BE) and Self-Inflicted Wounds (SIW), 6 June 1944 to 26 May 1945.⁶⁰

Week Ending	Strength	Cas	Sick	BE	SIW	Week Ending	Strength	Cas	Sick	BE	SIW
6-10 Jun-44		5,259^				09-Dec-44	268,000	590	2,007	54	3
17-Jun-44	217,437	7,194	1,155	563	16	16-Dec-44	261,000	287	1,976	21	6
24-Jun-44	294,393	2,554	1,027	365	18	23-Dec-44	286,000	474	1,599	34	2
01-Jul-44	355,000	6,020	2,329	925	18	30-Dec-44	297,000	471	1,719	39	6
08-Jul-44	424,922	3,739	2,855	999	30	06-Jan-45	304,000	907	2,290	73	8
15-Jul-44	399,003	4,225	2,131	1,365	31	13-Jan-45	299,000	993	2,805	72	6
22-Jul-44	421,576	6,615	6,281	2,373	28	20-Jan-45	299,000	742	2,177	54	5
29-Jul-44	343,839	2,670	2,225	622	20	27-Jan-45	210,000	945	1,889	92	8
05-Aug-44	296,000	3,968	2,717	681	19	03-Feb-45	175,000	269	1,562	9	4
12-Aug-44	274,000	5,173	1,984	923	21	10-Feb-45	166,000	234	1,264	27	1
19-Aug-44	238,000	1,730	2,468	231	8	17-Feb-45	130,000	194	1,267	29	1
26-Aug-44	221,190	492	1,803	53	5	24-Feb-45	102,000	86	883	26	0
02-Sep-44	234,000	893	1,114	87	3	03-Mar-45	101,000	110	816	20	3
09-Sep-44	244,000	1,419	686	39	2	10-Mar-45	228,000	883	1,913	82	1
16-Sep-44	245,000	1,220	1,186	186	5	17-Mar-45	300,000	469	1,900	15	0
23-Sep-44	250,000	2,005	933	190	3	24-Mar-45	346,000	1,314	1,597	69	0
30-Sep-44	255,000	1,554	1,760	260	4	31-Mar-45	316,000	5,124	2,473	411	13
07-Oct-44	290,000	1,599	1,717	165	3	07-Apr-45	325,000	2,657	1,577	156	11
14-Oct-44	274,000	876	1,540	219	3	14-Apr-45	356,000	2,214	1,751	125	9
21-Oct-44	265,000	1,496	1,582	334	5	21-Apr-45	357,000	2,360	2,289	136	6

28-Oct-44	303,000	1,616	2,018	182	1	28-Apr-45	357,000	1,469	2,366	143	9
04-Nov-44	268,000	1,956	1,729	295	8	05-May-45	373,000	1,522	2,355	112	18
11-Nov-44	269,000	1,092	1,552	108	16	12-May-45	401,000	714	2,327	20	6
18-Nov-44	275,000	1,232	1,601	96	2	19-May-45	347,000	479	2,461	7	1
25-Nov-44	262,000	1,534	2,261	128	2	26-May-45	311,000	303	1,473	0	0
02-Dec-44	266,000	931	1,819	82	0						

* This includes all casualties admitted for reasons of battle wounds, battle accidents and burns (but does not include killed and captured).

^ Admissions to medical units were not classified during this period. Thus, it is probable that this figure includes sick and battle exhaustion.

Table 8.2: Number of Conviction by Courts Martial for Desertion and AWOL, Second Army, July 1944 to April 1945.⁶¹

Month	Desertion	Absence	Total
July 1944	141*	96*	237
August 1944	393*	82*	475
September 1944	303	169	472
October 1944	343	143	486
November 1944	353	304	657
December 1944	380	261	641
January 1945	321	353	674
February 1945	310	327	637
March 1945	451	333	784
April 1945	410	264	674

* Figures for 103 and 105 Reinforcement Groups have been excluded as they were situated in the UK at this time.⁶²

As Courts Martial usually tried cases in arrears, it is assumed that cases tried in each month refer to crimes committed in the preceding month.

This detailed presentation of the facts should allow, through the use of a correlation analysis, a clearer picture to be formed of the relationship between morale and those factors historically associated with it.⁶³ The available statistics for desertion and AWOL, which were presented in a monthly fashion, could not be meaningfully broken down into bi-weekly figures (to be correlated with biweekly reported morale levels contained in the censorship summaries). Thus, it was decided to carry out the analysis on the 11 monthly periods of the Northwest Europe Campaign, June 1944 to April 1945.⁶⁴ The two biweekly censorship summaries in every month had, therefore, to be combined to create a morale score for each month as a whole (see Table 8.4). In cases where the censorship summaries described different levels of morale in the first and second half of a month, a best effort was made to find a balanced score taking fully into account the complexity of the issues addressed in both summaries. In many cases, this decision was not overly problematic. For example, it was sensible in instances where morale was described as ‘good’ (scored 1) in one half of the month and ‘excellent’ (scored 3) in the other half of the month to record an overall morale score of 2 (or ‘high’). The sick, battle exhaustion and SIW figures, recorded on a weekly basis, had also to be added together to produce monthly statistics.⁶⁵ The absolute figures for each month were reconverted into rates per 1,000 by taking an average from the size of army statistics contained in each ‘Weekly Hygiene Report’ (see Table 8.3); this ensured that the varying size of the army at different times did not distort the relationships. The rates for each category were then combined to produce a composite measure that could be correlated with the morale scale (see total/1,000 in Table 8.3).

Table 8.3: Monthly Sick, Battle Exhaustion (BE), Desertion/AWOL and SIW Rates per 1,000 in Second Army, June 1944 to April 1945.

Month	Sick/1,000	BE/1,000	Desertion*/1,000	SIW/1,000	Total/1000
Jun 1944	14.42	5.96	0.82	0.18	21.39
Jul 1944	36.99	14.22	1.20	0.30	52.72
Aug 1944	35.72	6.49	1.87	0.19	44.26
Sep 1944	19.64	2.81	1.96	0.06	24.46
Oct 1944	26.93	3.70	2.32	0.06	33.01
Nov 1944	28.79	2.09	2.39	0.09	33.36
Dec 1944	29.31	0.65	2.42	0.07	32.45
Jan 1945	36.12	1.09	2.29	0.11	39.62
Feb 1945	33.70	0.77	2.82	0.04	37.32
Mar 1945	30.75	2.00	2.61	0.06	35.41
Apr 1945	22.80	1.70	Not available	0.11	24.61**

* Includes AWOL. As Courts Martial usually tried cases in arrears, the figures for each month are based on the Courts Martial from the following month, i.e. the figure for July 1944 is derived from the number of Courts Martial carried out in August 1944.

** Does not include desertion/AWOL

Table 8.4: Morale Descriptions and Scores Based on the Censorship Summaries, Second Army, June 1944 to April 1945.

Month	Morale Description	Morale Score
June 1944	‘Excellent’	3
July 1944	‘Good’	1
August 1944	‘Good’	1
September 1944	‘Excellent’	3
October 1944	‘High’	2

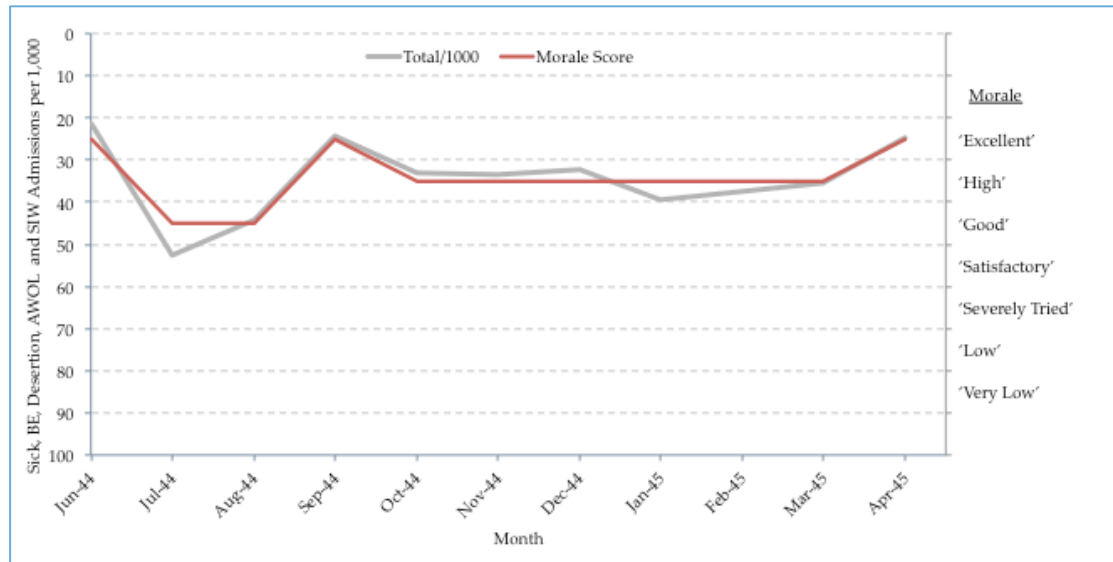
November 1944	‘High’	2
December 1944	‘High’	2
January 1945	‘High’	2
February 1945	‘High’	2
March 1945	‘High’	2
April 1945	‘Excellent’	3

The results of the correlation analysis showed that the composite measure (the combined rate of sickness, battle exhaustion, desertion, AWOL and SIW) had an extremely strong negative correlation with morale (-0.949, $P < 0.001$). This is a remarkably strong relationship and shows that these factors when taken together can be used as a quantitative method to assess levels of morale, at the very least for the Army and campaign under discussion. Coincidentally, it offers a quantitative justification of the approach used by this author in *Combat and Morale in the North African Campaign*. Of some interest also is the finding that of the factors taken singly, sickness had by far the strongest negative correlation with morale (-0.875, $P < 0.001$).⁶⁶

In Search of a Theory to Explain Combat Cohesion: The Case of British Second Army in Northwest Europe

Thus, the evidence suggests, that for Second Army, at this time, in the conditions prevalent in Northwest Europe, morale can be assessed quantitatively. This methodological innovation makes it possible, using figures for sickness, battle exhaustion, desertion, AWOL and SIW in Second Army to assess and graph levels of morale during the campaign on a monthly basis (see Figure 8.1).

Figure 8.1: Second Army, Monthly Admissions per 1,000 to General Hospitals and Casualty Clearing Stations for Sickness, Battle Exhaustion (BE), Desertion, AWOL and SIW as Compared to the Morale Score Derived from the Censorship Summaries, June 1944 to April 1945.⁶⁷



As one would expect from the high level of correlation, Figure 8.1 shows that the tabulated figures for sickness, battle exhaustion, desertion, AWOL and SIW coincide with the morale scale presented in Table 8.4, with the exception of July 1944, and, to a lesser extent, January and February 1945. In fact, it is suggested that where there is a discrepancy between the tabulated figures and the morale scale, the tabulated figures should be used. The bi-weekly censorship summaries, although an excellent source, are sometimes limited in their utility as a measure of morale due to the fact that they occasionally omit mail from key units during critical phases of the campaign. For example, the summary for 16 to 31 July 1944 did not assess mail from the main assault divisions (Guards Armoured Division, 7th Armoured Division and 11th Armoured division) during Operation Goodwood, the key battle during the report period.⁶⁸ In fact, only 326 of the 27,366 letters assessed in this bi-weekly summary

came from these units. The tabulated figures include sick, battle exhaustion, desertion, AWOL and SIW for all units during all phases of the campaign. Furthermore, by assessing these factors together, they render irrelevant reporting irregularities such as the fact that units often classified similar battle behaviours in very different manners (for example some units classified breakdowns in battle as exhaustion while others classified them as military crimes, such as desertion). Thus, it can be argued that the tabulated figures capture fluctuations in morale even more accurately than the morale scale derived from the censorship summaries.

The picture of morale that emerges from the tabulated figures shows clearly that, for most of the Northwest Europe Campaign, morale in Second Army was either high or excellent, as indeed one would expect during a successful period of fighting. In fact, morale appears to have been lower only during the static and arguably less successful fighting in Normandy, in July and August 1944. This can add considerably to our understanding of the Normandy campaign and the impact of morale on combat cohesion more generally. Much has been written on the state of morale in Second Army during this period, and, while an army with satisfactory morale can hardly be described as in crisis, this assessment of morale may go some way to explain Second Army's less than spectacular performance in the critical battles around Caen and Falaise in the summer of 1944.

To understand the role of morale in combat cohesion in Second Army in Northwest Europe better, however, an even more granular picture can be compiled (see Figure 8.2) by presenting weekly fluctuations in the rates of sickness, battle exhaustion and SIW (weekly figures for desertion and AWOL are not available). These factors taken together have almost as strong a negative correlation with morale (-0.936 , $P < 0.001$) as the total tabulated figures presented in Table 8.3.

Figure 8.2: Second Army, Weekly Admissions per 1,000 to General Hospitals and Casualty Clearing Stations for Sickness, Battle Exhaustion and SIW, 11 June 1944 to 5 May 1945. Morale scale equivalents are presented on the right hand Y-axis.⁶⁹

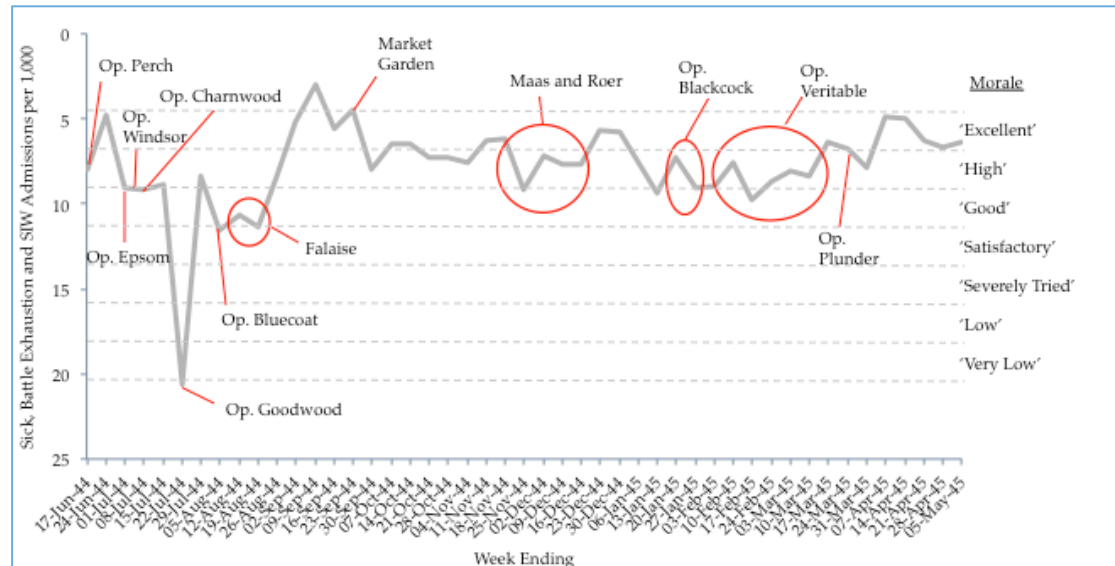


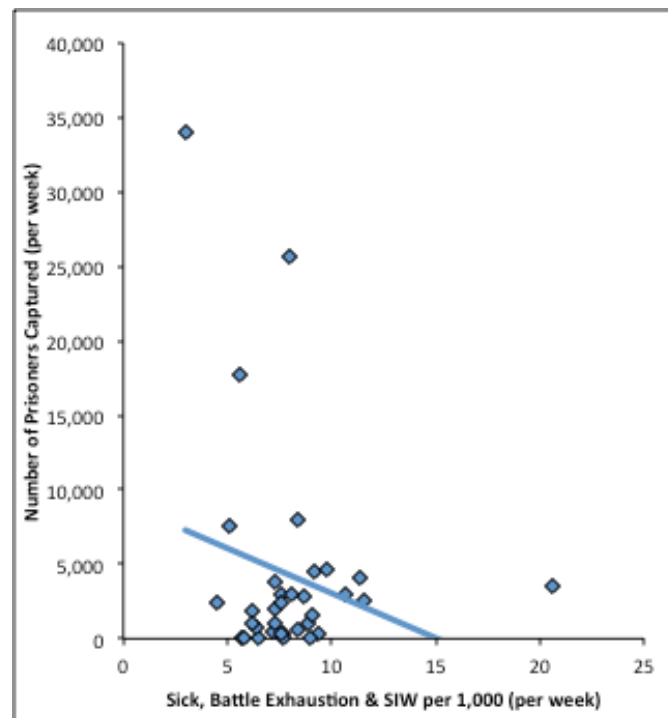
Figure 8.2 shows that while morale was, on the whole, high to excellent for much of the campaign, it did dip at some critical moments in July and November 1944 and January and February 1945. It could barely be described as ‘good’ during operations in the first half of August 1944, notably during Operation Bluecoat and the attempt to close the Falaise pocket, and was seriously problematic on one occasion – during Operation Goodwood in July 1944.

Indeed, the graphical analysis of morale presented in Figures 8.1 and 8.2 supports the conclusions of much of the recent historiography on the British Army in Northwest Europe; morale was a necessary component of combat cohesion (morale in Second Army was broadly speaking high throughout the victorious campaign); however, morale was not a sufficient explanation for Second Army’s successes and failures on the battlefield.⁷⁰ For example, morale would appear to have been at its highest before and during Operation Market Garden. But Market Garden was a

failure. It is likely, as John Buckley has argued, that Market Garden was a conceptual failure rather than a morale one.⁷¹ Morale would also appear to have been mostly high during operations in the Low Countries and Germany, but these operations were beset with setbacks and delays.

In fact, one of the key advantages of the quantitative assessment of morale presented in this chapter may be that it allows the relationship between levels of morale and combat cohesion to be quantitatively evaluated. Because the ‘Colossal Cracks’ operational approach employed by Second Army was essentially attrition based,⁷² an assessment of German casualties would be an excellent proxy for combat effectiveness. However, while such figures are available in ten day periods for the German Army as a whole, they do not differentiate between casualties inflicted by Allied nationality e.g. British, Canadian or American, making an accurate assessment of Second Army’s effectiveness on this basis problematic. As the number of enemy prisoners captured by Second Army per week is available, it may be used as a crude but useful alternative proxy for combat success or cohesion. As can be seen in Figure 8.3, there is a weak negative correlation (-0.236 , $P=0.179$) between the level of morale in each week of the campaign (assessed by using figures for sickness, battle exhaustion and SIW) and the number of enemy prisoners captured per week. Insofar, therefore, as the number of prisoners captured might indicate combat success, this success is only weakly associated with the strength of morale in Second Army.

Figure 8.3: Second Army, Rate of Sick, Battle Exhaustion and SIW per 1,000 and Number of Prisoners Captured per Week.⁷³

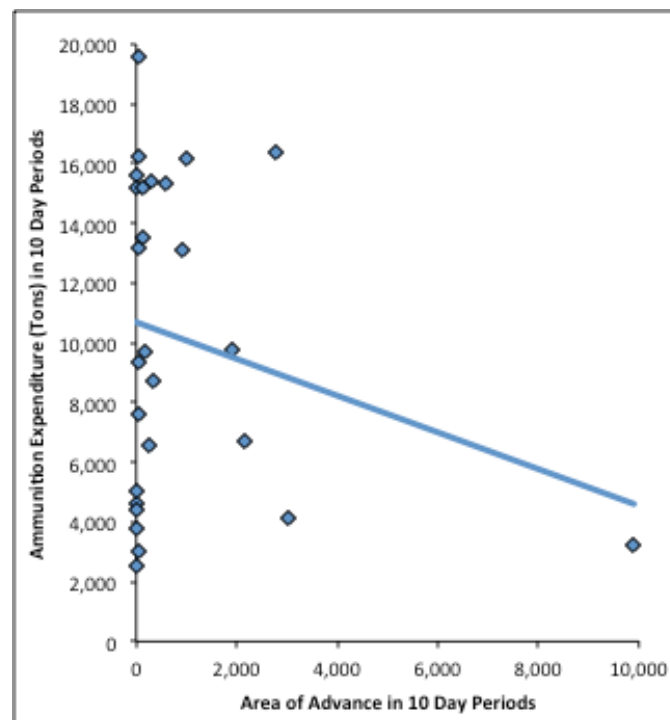


The empirical evidence presented in Figures 8.2 and 8.3 may have implications for our understanding of combat cohesion in the Twentieth Century. It clearly indicates that the ‘morale narrative’, as outlined by King, may, while correctly emphasising the important role of morale in combat cohesion, tend to overestimate that importance to the exclusion of other key factors.

Additionally, any suggestion that Second Army’s combat performance was the product primarily of the application of overwhelming firepower (the ‘brute force narrative’) appears to be undermined also by the available evidence. Army Operational Research Group Memorandum No. E20, ‘Some Statistics on the North West Europe Campaign’, clearly states that there ‘was no significant correlation between German casualties and either Allied [Anglo-Canadian 21st Army Group and US 12th Army Group] casualties or Allied ammunition expenditure’.⁷⁴ Furthermore,

Figure 8.4 demonstrates that there was not a strong relationship (-0.234 , $P=0.179$) between the firepower employed by 21 Army Group, of which Second Army was a key component, and the area of ground captured from the enemy (again, a crude but useful proxy for combat success). In fact, there was a similarly weak correlation (-0.160 , $P=0.445$) between the firepower employed by 21 Army Group and the number of enemy prisoners captured.⁷⁵

Figure 8.4: 21st Army Group, Area of Advance in 10 Day Periods to Ammunition Expended (1 July 1944 to 28 March 1945).⁷⁶



Furthermore, any suggestion that the performance of Second Army was driven primarily by conceptual considerations (the ‘tactics narrative’) appears to be ill founded. David French, Stephen Hart and Stephen Biddle have all argued that Montgomery employed a systematic, or even formulaic, approach to battle in the Northwest Europe campaign.⁷⁷ Indeed, by 1944, Montgomery had devised an operational approach that gave the British Army the best chance possible to tackle the

Wehrmacht in battle. As John Buckley has argued, Montgomery's 'greatest achievement' was 'correctly adopting an operational approach that emphasized British strengths (firepower, planning, logistics and intelligence) and avoided weaknesses (close-combat tactics and manoeuvre)'.⁷⁸ However, both theoretically and practically, there are limits to the effectiveness of systemic approaches to battle. Both Buckley and Copp have argued that by 1944, German tactics had become so predictable that the Allies were able to devise their own strategies around them. The same can be said for the British approach. By 1944, the Germans were fully aware, for example, that the direction of creeping barrages indicated the thrust lines of impending advances. This made it easy for the *Wehrmacht* to place reserves at the decisive point at the key moment. Normandy did not go exactly according to plan; no military plan ever survives first contact with the enemy unchanged.⁷⁹ In fact, as Buckley and Copp have intimated, the Northwest Europe campaign was characterised far more by adaptation and innovation than heretofore recognised.⁸⁰ It can be argued, therefore, that British success was not built primarily on an operational, or conceptual, approach to the problem (however much this may have helped), but rather on the ability of individuals (including Montgomery) and units at every level of the military organisation to balance the available means (be they material, tactical or morale) with the objectives and ends at hand, as indeed they did over the course of the successful campaign. This interactive, dynamic process required a nuanced, flexible and strategic approach to combat cohesion.

Combat Cohesion and Strategy

Further consideration, therefore, of the relationship between cohesion and strategy may shed light on the issue. According to Clausewitz, 'war is an act of force to

compel our enemy to do our will'.⁸¹ This statement suggests that, more often than not, belligerents fight for a goal, or an end, that they try to achieve or impose upon an enemy. That goal does not have to be rational or particularly well thought out; it can be driven by reason, passion, hatred and pure chance. Nevertheless, the challenge of devising a successful strategy to achieve a goal dominates military theory and practice. Indeed strategy was the central and unifying theme of Clausewitz's *On War*.⁸²

Clausewitz defined strategy as the 'use of the engagement for the purpose of the war'.⁸³ More recently, Colin Gray defined strategy as 'the use that is made of force and the threat of force for the ends of policy',⁸⁴ while Liddell Hart described strategy as 'the art of distributing and applying military means to fulfill the ends of policy'.⁸⁵ Thus, it appears clear that the relationship between military means and policy objectives (or ends) is at the heart of the strategic process.⁸⁶ Military decision makers have constantly to align their means to coincide with policy; vice versa, policy makers have to create policy in line with the available means. As Strachan puts it

In the ideal model of civil–military relations, the democratic head of state sets out his or her policy, and armed forces coordinate the means to enable its achievement. The reality is that this process – a process called strategy – is iterative, a dialogue where ends also reflect means, and where the result – also called strategy – is a compromise between the ends of policy and the military means available to implement it.⁸⁷

To achieve policy by use of violent means, a belligerent has typically to match his effort against what Clausewitz referred to as an enemy's 'power of resistance'. This

he expressed as ‘the product of two inseparable factors, viz. the total means at his disposal and the strength of his will’.⁸⁸ To put it another way, all belligerents in a conflict engage with strategy and attempt to balance ends with means. Military means are a product of the interplay between the material capability to fight and the will to fight (morale, as defined above).⁸⁹ When a belligerent can no longer continue to fight, because their material strength has been whittled away through attrition, or they are no longer willing to fight, and they desert or surrender en masse, that belligerent must eventually, by engaging in the strategic process, also alter policy (ends must reflect means). Victory ensues when a belligerent comes to the conclusion that they no longer have the means, either physical or psychological, or both, to resist the will of the enemy and they alter policy (to for example surrender or enter negotiations for a cease fire).⁹⁰

As Michael Howard has put it

The military means used to obtain the purposes of the war were divided by Clausewitz and his successors into two: *Vernichtungsstrategie*, ‘strategy of annihilation’ – the destruction of the enemy capacity to defend himself by destroying his armed forces on the battlefield; and *Ermattungsstrategie*, the use of attrition to wear down his will to resist. The first disarms the adversary, leaving him literally at the mercy of the victor. The second persuades him that victory is, if not impossible, only obtainable at an unacceptable price.⁹¹

While strategy, in the current dominant usage, is ‘designed to make war useable by the state, so that it can, if need be, use force to fulfill its political objectives’,⁹² it can

also be used in the sense that one might have a 'strategy' to cross the fireswept zone and capture, for example, a pill box on the other side of a field. Militaries tend to refer to this type of activity as 'tactics' or 'drill'. However, 'tactics' or 'drill', it can be argued, represent nothing more than formalised pre-packaged strategy. They provide junior leaders with ready-made solutions to balance ends and means in oft-repeated military scenarios. Strategy, understood as a process appears, therefore, to play a key role, in different guises, at different levels of military activity and may be understood to increase in complexity as one climbs the levels of war. Strategy at the tactical level can almost always be formalised in drill. Strategy at the operational level can be formalised in operational doctrine. However, at the military strategic, grand strategic or political levels, strategy becomes so complex and contingent that it is beyond formalisation or doctrine and becomes truly the art of the military or political genius.

Thus, it is fair to argue that decision makers at all levels in war have to act strategically (balance ends with means). Indeed, S.L.A. Marshall insisted that they do.⁹³ As the strategies devised by political leaders and senior officers influence the goals and objectives (policies) and means available to those below them, strategy cascades in an interactive fashion from the top of the state apparatus to the activities of junior officers on the front line. To take the Second World War (and particularly the climactic 'end-game' in Northwest Europe) as an example, those in charge of the state (the politicians) decided that the only strategy for realising the end of protecting British long term interests was to wage war with Germany. As a consequence, decision makers (at the grand strategic level) were tasked with devising strategies to balance the ends of winning the war with the military, economic, diplomatic and intelligence means available. These strategies influenced the policy, or the goal, and means available at the military strategic level. Those tasked with strategy at the

military strategic level then had to balance these ends and means, or, if this proved impossible, ask their superiors to rein in ends or ramp up the means. In the case of Northwest Europe, commanders decided that the best way to bring about the defeat of the *Wehrmacht* on the continent was to launch an invasion across the Channel to the shores of Normandy. This strategy outlined the ends and means for operational level commanders in the British Army who had to develop their own ‘strategies’ to get ashore at Normandy. One element of the operational challenge was the requirement for 3 British Infantry Division to storm Sword beach. Thus, ‘strategy’ at the operational level influenced policy (or the ends) and the means available at the tactical level, and junior officers had to develop their own ‘strategies’ to succeed with the specific assignments tasked to them on 6 June 1944.

If we understand strategy in this manner, as an interactive process that both cascades down and feeds back up the levels of war, rather than a level of war or activity situated only as a bridge between national policy and tactics,⁹⁴ we may begin to see inadequacies in the three broad meta-narratives of combat cohesion outlined in this chapter. Each ‘narrative’ explains combat cohesion as the product mainly of one element of strategy, rather than the emergent outcome of a complex multidimensional process. The ‘brute force narrative’ focuses on the ‘material capability’ element of military means. The ‘morale narrative’ focuses on the ‘will’ element of military means. The ‘tactics narrative’ tends to interpret strategy as a fixed doctrine (for example Biddle’s ‘modern system of force employment’) rather than a dynamic interactive process where means constantly affect policy as much as policy affects means. Thus, the ‘tactics narrative’ assumes that formalised responses to military problems are adequate when, in fact, war is infinitely complex and decisions and activities have to be made in light of constantly shifting and evolving events (as

S.L.A. Marshal put it, in war ‘the unusual is met usually and the abnormal becomes the normal’).⁹⁵ Furthermore, the ‘tactics narrative’, as Strachan has pointed out, can obscure the dynamic inter-linkages between the different levels of war. For example, it can treat tactics and operations as a ‘politics free zone’ and can, therefore, encourage military practitioners to ‘diverge dangerously’ from the policies devised at the political, grand strategic and military strategic levels, as indeed it did with the German Army in the Second World War, and, arguably, in the counter insurgency campaigns undertaken by the British and American Armies in more recent conflicts in Iraq and Afghanistan.⁹⁶ Strategy can, and perhaps should, be understood as an iterative multi-level decision-making continuum where decisions on means and ends at each level can affect decisions on means and ends at all other levels.

The three broad meta-narratives of combat cohesion, unquestionably add to our understanding of the role of firepower, tactics and morale in battle. However, while it is certainly possible that firepower, tactics or morale might have played a dominant role in specific battles in the Northwest Europe campaign, the evidence derived from this study suggests that patterns of cohesion in British Second Army cannot be explained by reference to one ‘narrative’ on its own. In the case of Second Army, it appears that there was no ready-made solution to the problems of cohesion on the battlefield (see Figures 8.2, 8.3 and 8.4). The best that commanders could do, as Clausewitz argued in *On War*, was to recognise the components of the problem and manage and balance them appropriately in each battle scenario i.e. behave strategically.⁹⁷ The individuals in Second Army, including army commanders and junior officers, made decisions and behaved in ways that were highly contextualised, contingent and interlinked. While all-encompassing theories may be attractive, the challenge for scholars trying to search for patterns is to recognise complexity and

embrace its methodological challenges rather than shy away from it in the search for simplicity. Indeed empiricism demands such a scholarly approach.

Conclusion

This chapter has reevaluated the role of morale in the military strategic process. It has proposed a functional conceptualisation of morale, which focuses its meaning and relevance on motivation and the willingness to act in a manner required by an authority or institution. This conceptualisation of morale has facilitated a first step towards developing a methodologically sound quantitative approach to assessing morale in an historical battle context. Additionally, the conceptual and methodological innovations explored here have facilitated a more thorough interrogation of the complex web of interrelationships that shape military performance. The chapter offers evidence to suggest that the dominant narratives on combat cohesion have either over estimated or under estimated the importance of morale, not least perhaps due to the fact that it is typically conceptually misunderstood and inaccurately assessed. Thus, the findings point to the need to reevaluate the dominant theories on combat cohesion and put strategy, understood as an interactive process that both cascades down and feeds back up the levels of war, at the heart of any understanding of combat cohesion.

These conclusions resonate with the broader themes of this volume. Indeed, the irregular wars of the twentyfirst century are more similar in nature to the conventional ones of the twentieth than is generally perceived.⁹⁸ The use of ‘brute force’ by the British Army in Helmand in Afghanistan from 2006 did not produce the outcomes desired, nor, in recent years, has a tactical and operational approach which focused on ‘hearts and minds’, or the willingness (morale) of combatants and citizens

to fight, led to a peaceful and prosperous Afghanistan. As Hew Strachan has argued in relation to the German Army in 1940, 'tactical and operational successes' have not been 'given the shape which strategy could have bestowed'.⁹⁹ In Iraq and Afghanistan, operational doctrine, the 'tactics' narrative, has filled the void left by strategy, but, in spite of its sophistication has failed to do duty for effective strategy.¹⁰⁰ Thus, cohesion at the tactical and operational levels in Iraq and Afghanistan cannot be understood outside of the context of strategy. Indeed, it would appear that combat cohesion is contingent, contextual, multidimensional and inherently complex and any attempt to understand it must acknowledge that reality. The challenge for military practitioners in the twentyfirst century, as surely it was in the twentieth, is to balance and coordinate ends and means at all levels of war and in all military scenarios. This (strategic) process requires intelligent, well-trained, highly motivated and well-provisioned personnel to identify the character of the war they are fighting and act appropriately. As Clausewitz wrote,

Theory cannot equip the mind with formulas for solving problems, nor can it mark the narrow path on which the sole solution is supposed to lie by planting a hedge of principles on either side. But it can give the mind insight into the great mass of phenomena and of their relationships, then leave it free to rise into the higher realms of action.¹⁰¹

¹ Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*

² For just a few examples see: Paul Addison and Angus Calder (eds.), *Time to Kill: The Soldier's Experience of War in the West 1939-1945* (London: Pimlico, 1997); John Baynes, *Morale: A Study of Men and Courage* (London: Cassell, 1967); Omer Bartov, *The Eastern Front, 1941-45: German Troops and the Barbarisation of Warfare* (Oxford: Macmillan, 1985); Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton: Princeton University Press, 2004); Thomas W. Britt, Carl Andrew Castro and Amy B Adler (eds.), *Military Life: The Psychology of Serving in Peace and Combat, Volume 1: Military Performance* (Westport: Greenwood, 2006); Trevor N. Dupuy, 'Theory of Combat', in Franklin D. Margiotta (ed.), *Brassey's Encyclopaedia of Military History and Biography* (Washington: Brassey's 1994); John Ellis, *The Sharp End: The Fighting Man in World War II* (London: Pimlico 1993); Stephen G. Fritz, *Frontsoldaten: The German Soldier in World War II* (Lexington: University Press of Kentucky, 1995); Reuven Gal and A. David Mangelsdorff (eds.), *Handbook of Military Psychology* (Chichester: John Wiley, 1991); Richard Holmes, *Acts of War: The Behaviour of Men in Battle* (London: Cassell, 2004); S.L.A. Marshall, *Men Against Fire: The Problem of Battle Command in Future War* (Alexandria: Byrdd Enterprises, Inc., 1947); Allan R. Millet and Williamson Murray (eds.), *Military Effectiveness Vol. I: The First World War* (London: Allen and Unwin, 1988); Charles Moskos, *The American Enlisted Man: The Rank and File in Today's Military* (New York: Russell Sage Foundation, 1970); Sam C. Sarkesian (ed.), *Combat Effectiveness: Cohesion, Stress, and the Volunteer Military* (London: Sage Publications, 1980); Edward A. Shils and Morris Janowitz, 'Cohesion and Disintegration in the Wehrmacht in World War II', *Public Opinion Quarterly* Summer 1948; Guy L. Siebold, 'The Essence of Military Group Cohesion', *Armed Forces and Society* Vol. 33, No. 2 2007; Nora Kinzer Stewart, *Mates and*

Muchachos, Unit Cohesion in the Falklands/Malvinas War (New York: Brassey's, 1991); Samuel A. Stouffer *et al*, *The American Soldier: Combat and Its Aftermath* (New York: John Wiley 1965); Leonard Wong, Thomas A. Kolditz, Raymond A. Millen, Terrence A. Potter, 'Why They Fight: Combat Motivation in the Iraq War', *Report for the Strategic Studies Institute* July 2003.

³ Anthony King, *The Combat Soldier: Infantry Tactics and Cohesion in the Twentieth and Twenty-First Centuries* (Oxford: Oxford University Press, 2013), 36.

⁴ Sam C. Sarkesian, 'Combat Effectiveness', in Sarkesian (ed.), *Combat Effectiveness: Cohesion, Stress and the Volunteer Military*.

⁵ Allan R. Millet, Williamson Murray and Kenneth H. Watman, 'The Effectiveness of Military Organizations', in Millet and Murray (eds.), *Military Effectiveness Vol. I: The First World War*, 2.

⁶ *Ibid.*, 3.

⁷ Millet, Murray and Watman identified two approaches, a sociological approach and an operational approach.

⁸ Gerd Hardach, *The First World War, 1914-1918* (Berkeley: University of California Press, 1977), 80.

⁹ Marshall, *Men Against Fire*, 23.

¹⁰ *Ibid.*, 66-7.

¹¹ Hew Strachan, 'Training, Morale and Modern War', *The Journal of Contemporary History*, Vol. 41(2), 2006, 225.

¹² John Buckley, *Monty's Men: The British Army and the Liberation of Europe* (London: Yale University Press, 2013), 9; Basil Liddell Hart, *The Other Side of the Hill* (London: Cassells, 1951); Chester Wilmot, *The Struggle for Europe* (London: The Reprint Society, 1954). First published 1952.

¹³ John Ellis, *Brute Force: Allied Strategy and Tactics in the Second World War* (London: André Deutsch, 1990), 538.

¹⁴ See, for example, Biddle, *Military Power*; Buckley, *Monty's Men*; Terry Copp, *Fields of Fire: The Canadians in Normandy* (London: University of Toronto Press, 2003); David French, *Raising Churchill's Army: The British Army and the War against Germany 1919-1945* (Oxford: Oxford University Press, 2000); Stephen Ashley Hart, *Colossal Cracks: Montgomery's 21st Army Group in Northwest Europe, 1944-45* (Mechanicsburg: Stackpole, 2007); Daniel P. Marston, *Phoenix from the Ashes: The Indian Army in the Burma Campaign* (London: Praeger, 2003); T.R. Moreman, *The Jungle, The Japanese and the British Commonwealth Armies at War, 1941-45* (Abingdon: Frank Cass, 2005).

¹⁵ Stephen Biddle, *Military Power*, 190.

¹⁶ *Ibid.*, 3.

¹⁷ *Ibid.*, 190.

¹⁸ King, *The Combat Soldier*, 204. See also, John Baynes, *Morale*; John Keegan, *The Face of Battle* (London: Pimlico, 1991); Ardant du Picq, *Battle Studies: Ancient and Modern Battle* (Charleston: BiblioBazaar, 2006).

¹⁹ King, *The Combat Soldier*, 41. See also Baynes, *Morale* and Leonard V. Smith, *Between Mutiny and Obedience*, (Princeton: Princeton University Press, 1994) on this matter.

²⁰ Stephen Biddle, *Military Power*, 207. For some exceptions see: Boff, 'The Morale Maze'; Fennell, 'In Search of the "X" Factor'; J.-F. Fils., 'The Measurement of Morale among Belgian Military Personnel Deployed in Crisis Response Operations: A Longitudinal Survey Design', in *Human Dimensions in Military Operations – Military Leaders' Strategies for Addressing Stress and Psychological Support*.

Meeting Proceedings RTO-MP-HFM-134, Paper 28. Neuilly-sur-Seine, France, April 2006; J.M. Foret, 'Measuring Morale within the French Army', in Human Dimensions in Military Operations – Military Leaders' Strategies for Addressing Stress and Psychological Support, Meeting Proceedings RTO-MP-HFM-134, Paper 29. Neuilly-sur-Seine, France, April 2006; Melvin J. Kimmel and Francis E. O'Mara, 'The Measurement of Morale', U.S. Army Research Institute for the Behavioural and Social Sciences 1981; Melvin J. Kimmel, Francis E. O'Mara and Nehama Babin, 'The Development of a Unit Morale Measure for Army Battalions', Technical Report 617, U.S. Army Research Institute for the Behavioural and Social Sciences, March 1984; S.J. Motowidlo, B.E. Dowell, W.C. Borman, P.D. Johnson and M.D. Dunnette, 'Motivation, Satisfaction, and Morale in Army Careers: A Review of Theory and Measurement', Minneapolis, Personnel Decisions Research Inst, 1976; Wilcox, 'Morale and Battlefield Performance at Caporetto, 1917'.

²¹ Michael I. Handel, *Masters of War: Classical Strategic Thought* (London: Frank Cass, 2001), 15.

²² Thomas W. Britt and James M. Dickinson, 'Morale during Military Operations: A Positive Psychology Approach', in Britt, Castro and Adler (eds.), *Military Life*, 162; Reuven Gal and Frederick J. Manning, 'Morale and its Components: A Cross National Comparison', *Journal of Applied Social Psychology*, Vol. 17, No. 4 1987, 369; Robert M. Guion, 'Industrial Morale (A Symposium): 1. The Problem of Terminology', *Personnel Psychology*, Vol. 11, No. 1 1958, 60-2; Motowidlo, Dowell, Borman, Johnson and Dunnette, 'Motivation, Satisfaction, and Morale in Army Careers', 49-52.

²³ E. Kier, 'Homosexuality in the US Military: Open Integration and Combat Effectiveness', *International Security*, Vol. 23, No. 2, 1998; R. MacCoun, 'What is

Known about Unit Cohesion and Military Performance’, in National Defence Research Institute, *Sexual Orientation and US Military Personnel Policy: Options and Assessment*, Washington: RAND, 1993.

²⁴ John A. Lynn, *The Bayonets of the Republic: Motivation and Tactics in the Army of Revolutionary France* (Oxford: Westview Press 1996), 34-5.

²⁵ Stephen D. Wesbrook, ‘The Potential for Military Disintegration’, in Sarkessian (ed.), *Combat Effectiveness*, 257.

²⁶ John Keegan, ‘Towards a Theory of Combat Motivation’ in Addison and Calder (eds.), *Time to Kill*, 6.

²⁷ Ibid. Hew Strachan has also argued that coercion is not always given enough recognition as a motivational tool (Hew Strachan, ‘The Soldier’s Experience in Two World Wars: Some Historiographical Comparisons’, in Addison and Calder (eds.), *Time to Kill*, 374-5.

²⁸ Marshall, *Men Against Fire*, 165.

²⁹ Stouffer *et al*, *The American Soldier*, 101.

³⁰ National Archives (NA) WO 277/7 A.B. McPherson, ‘The Second World War 1939-1945, Army Discipline’, 2.

³¹ Imperial War Museum (IWM) 99/1/2 Major General Raymond Briggs Papers, Paper by Field-Marshal Montgomery, ‘Morale in Battle: Analysis’, 30 April 1946, 43.

³² Ibid., 47-8.

³³ Ibid., 51-3.

³⁴ Douglas A. Bernstein, Alison Clarke-Stewart, Edward J. Roy, Christopher D. Wickens, *Psychology* (Boston, Houghton Mifflin, 1997), 337.

³⁵ In fact, one of Britt's other studies supports this view. He asked a small sample of soldiers to indicate what they thought were the key characteristics of morale. He found that soldiers were most likely to indicate the attributes of motivation and drive in their views of morale (Britt and Dickinson, 'Morale during Military Operations', in Britt, Castro and Adler (eds.), *Military Life*, 163).

³⁶ Marshall, *Men Against Fire*, 157-8.

³⁷ Leonard Wong, Thomas A. Kolditz, Raymond A. Millen, Terrence A. Potter, 'Why They Fight: Combat Motivation in the Iraq War', Report for the Strategic Studies Institute, July 2003.

³⁸ Jonathan Boff, *Winning and Losing on the Western Front: The British Third Army and the Defeat of Germany in 1918* (Cambridge: Cambridge University Press, 2012); Jonathan Fennell, *Combat and Morale in the North African Campaign: The Eighth Army and the Path to El Alamein* (Cambridge: Cambridge University Press, 2011); Alexander Watson, *Enduring the Great War: Combat, Morale and Collapse in the German and British Armies, 1914-1918* (Cambridge: Cambridge University Press, 2008).

³⁹ John Buckley, *British Armour in the Normandy Campaign 1944* (London: Frank Cass, 2004); Buckley, *Monty's Men*; David French, "'Tommy is no soldier': The Morale of the Second British Army in Normandy, June-August 1944", *Journal of Strategic Studies* 19:4, 1994, 154-178. See also, Terry Copp and Bill McAndrew, *Battle Exhaustion: Soldiers and Psychiatrists in the Canadian Army, 1939-1945* (London: McGill-Queen's University Press, 1990).

⁴⁰ Fennell, *Combat and Morale*, Chapter One.

⁴¹ F.A.E. Crew, *The Army Medical Services, Campaigns, Volume IV, North-West Europe* (London: Her Majesty's Stationary Office, 1962), 563.

⁴² Field Marshal Montgomery, Despatch, *The London Gazette*, 3 September 1946 in Crew, *The Army Medical Services, North-West Europe*, 560.

⁴³ NA WO 177/321 Monthly Report for June 1944 by Psychiatrist Attached 2nd Army, 7 July 1944.

⁴⁴ Library and Archives Canada (LAC) Volume 12631 File No. 11/Psychiatry/5 Reports, Major R.A. Gregory, Neuro-psychiatrist 3 Canadian Infantry Division, 'Psychiatric Report', October 1944.

⁴⁵ SIW were punished with 2 years imprisonment with hard labour. Desertion, by comparison, was punished with 3 years penal servitude – Australian War Memorial (AWM) 54 624/2/6 Report on Functions of 'AG's' Branch During Invasion of Western Europe, 1944, 237-8.

⁴⁶ Crew, *The Army Medical Services, North-West Europe*, 326.

⁴⁷ NA WO 285/25 Report on 'Soldiers Under Sentence' for Such Offences as Desertion, Cowardice, Mutiny etc., Whose Cases Have Been Reviewed in British Second Army, June 1945.

⁴⁸ See, for example, NA WO 204/6701 Morale British Troops in Italy, 1943 to 1945; AWM 54 423/11/98 Middle East Military Weekly Censorship Summaries, Covering Dominion, Colonial and Allied Forces, Allied Air Forces, Women's Forces and British Prisoners of War in Enemy hands, 1942.

⁴⁹ Of the rest, 135 were transferred for service in other parts of the Army, 13 were identified as 'irreconcilable types' and kept in prison, 12 were admitted to a psychiatric hospital and one was discharged from the Army altogether.

⁵⁰ NA WO 285/25 Report on 'Soldiers Under Sentence' for Such Offences as Desertion, Cowardice, Mutiny etc., Whose Cases Have Been Reviewed in British Second Army, June 1945.

⁵¹ WO 177/336 War Diary H.Q. (Medical) 1 British Corps, January 1945, Appendix IV: Quarterly Report by Brigadier Q.V.B. Wallace, D.D.M.S. 1 Corps, Quarter Ending 31 December 1944, Appendix B: Some Notes on Medical Ops.

⁵² Lieutenant-Colonel A.T.A. Browne, 'A Study of the Anatomy of Fear and Courage in War', *The Army Quarterly and Defence Journal* 106: 3, 1976, 3-4.

⁵³ See Fennell, *Combat and Morale* and 'In Search of the "X" Factor'.

⁵⁴ The scale, therefore, approximates to what is known as an 'equal appearing interval scale'.

⁵⁵ NA WO 177/321 D.D.M.S. 2nd Army, War Diaries, 1943-44; NA WO 177/322 D.D.M.S. 2nd Army, War Diaries, 1945. Precise weekly figures for battle casualties (broken down into battle wounds, battle accidents, SIW and burns) are contained in WO 177/322 in an appendix to a 'Report on Surgery in Second Army in the Northwest Europe Campaign, 1944-45'.

⁵⁶ Due attention was given to the difference between 'admissions' and 'incidence' in order to avoid double counting. Admissions refer to the total number of new cases in each period; 'incidence' refers to the total number of cases being treated during each period (thus, it could include admissions from a previous period). However, in the case of battle exhaustion, the absolute figures for 'admissions' and 'incidence' were extremely similar. For example, the battle exhaustion figures for the period of the Normandy campaign calculated here tally almost exactly with the figures presented as 'exhaustion cases' in French, "'Tommy is no soldier'", 173. They also tally almost exactly with absolute figures presented elsewhere in the primary sources. Accordingly, there appears to be little danger of double counting. The similarity in the 'admissions' and 'incidence' figures may be explained by the quick turnaround experienced by those who suffered from battle exhaustion (5 to 7 days in July 1944).

See for example, NA WO 177/321 Report by Psychiatrist Attached to 2nd Army for Month of July 1944. In some cases where exact numbers for battle exhaustion were found in the sources, they were used in preference to the computed figure.

⁵⁷ WO 177/322 Report on Surgery in Second Army in Northwest Europe, 1944 to 1945.

⁵⁸ WO 171/182 War Diaries, Deputy Judge Advocate General, 21st Army Group, April to December 1944; Liddell Hart Centre for Military Archives (LHCMA) De Guingand Papers, Administrative History of 21 Army Group, 6 June 1944 to 8 May 1945.

⁵⁹ French, “Tommy is no soldier”; Buckley, *British Armour in the Normandy Campaign*, 200-202.

⁶⁰ WO 177/321 D.D.M.S. 2nd Army, War Diaries, 1943-44; WO 177/322 D.D.M.S. 2nd Army, War Diaries, 1945; LAC Volume 12630 File No. 11/Psychiatry/1/2 Lt-Col. J.C. Richardson, 'Memorandum about Current Neuropsychiatric Problems in the Canadian Army in the European Theatre of Operations, 27 October 1944; WO 285/18 2nd Army, Health Reports, December 1944 to June 1945. Figures for casualties (which include battle wounds, battle accidents and burns, but not killed in action or captured) have been included in case a reader wishes to calculate the percentage of e.g. battle exhaustion to wounded.

⁶¹ LHCMA De Guingand Papers, Administrative History of 21 Army Group, 6 June 1944 to 8 May 1945; NA WO 171/182 War Diaries, Deputy Judge Advocate General, 21st Army Group, April to December 1944. The figures presented here are higher than those in French, “Tommy is no soldier”, 172. This may be because French does not include the independent armoured brigades and line of command troops in his figures.

⁶² 103 and 105 Reinforcement Groups accounted for 76 courts martial for desertion and 244 for absence in July 1944 and 112 for desertion and 417 for absence in August 1944. 103 and 105 Reinforcement Groups moved to the continent in September 1944 and, therefore, figures from these units have been included from this period onwards.

⁶³ The findings from this research are explored further in the author's upcoming book, *The Peoples' Armies: The British and Commonwealth Armies and the Second World War* (Cambridge, Cambridge University Press, forthcoming 2015).

⁶⁴ The figures for May were not included as the German Army surrendered to 21st Army Group on 6 May 1945.

⁶⁵ Where a week straddled two months, sick, battle exhaustion and SIW figures were assigned to each month in proportion to the number of days of the week that fell in each month.

⁶⁶ A strong correlation between two variables would produce an r-value in excess of +0.9 or -0.9. T. Lucy, *Quantitative Techniques* (Continuum: London, 1996), 113.

⁶⁷ Incidences of excellent morale coincided with figures of between 20 and 30 sick, battle exhaustion, desertion, AWOL and SIW per 1,000. Incidences of high morale coincided with figures between 30 and 40 per thousand etc. These findings were verified statistically by use of principal coordinate analysis and a T-Test.

⁶⁸ The summary did, however, include a very small number of letters from Guards Armoured Division on 18 July 1944.

⁶⁹ These weekly morale scale equivalents were computed by dividing the monthly levels from table 8.1 by 31 and multiplying by 7.

⁷⁰ See, for example, Buckley, *Monty's Men*, Hart, *Collosal Cracks*.

⁷¹ Buckley, *Monty's Men*, 208-31.

⁷² Hart, *Collosal Cracks*.

⁷³ WO 219/1531 Casualty Reports, British, Canadian and US Forces Daily Summaries, including enemy prisoners taken, June to October 1944; WO 219/1532 Casualty Reports, British, Canadian and US Forces Daily Summaries, including enemy prisoners taken, Oct 1944 to Mar 1945; WO 177/316 Medical Diaries, D.D.M.S. 21st Army Group, 1944; LHCMA Papers of Gen Sir Harold English Pyman 5/21, 'A Short Account of the Operations of the Second British Army'.

⁷⁴ NA CAB 106/1084 Army Operational Research Group Memorandum No. E20, 'Some Statistics of the North West European Campaign, June 1944 to May 1945', 27.

⁷⁵ WO 219/1531 Casualty Reports, British, Canadian and US Forces Daily Summaries, including enemy prisoners taken, June to October 1944; WO 219/1532 Casualty Reports, British, Canadian and US Forces Daily Summaries, including enemy prisoners taken, Oct 1944 to Mar 1945; WO 177/316 Medical Diaries, D.D.M.S. 21st Army Group, 1944; LHCMA Papers of Gen Sir Harold English Pyman 5/21, 'A Short Account of the Operations of the Second British Army'; NA CAB 106/1084 Some Statistics of the North West European Campaign, June 1944 to May 1945.

⁷⁶ Derived from statistics presented in NA CAB 106/1084, Some Statistics of the North West European Campaign, June 1944 to May 1945. The extent to which the ten-day periods coincide with bombardments and advances could possibly distort these relationships, but probably not sufficiently to take from the overall thrust of the argument outlined here.

⁷⁷ Biddle, *Military Power*; French, *Raising Churchill's Army*; Hart, *Colossal Cracks*.

⁷⁸ Buckley, *Monty's Men*, 29.

⁷⁹ Daniel J. Hughes, *Moltke on the Art of War: Selected Writings* (Novato, CA: Presidio, 1993).

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- ⁸⁰ Copp, *Fields of Fire*; Buckley, *Monty's Men*.
- ⁸¹ Clausewitz, *On War*, 83.
- ⁸² Hew Strachan, 'A Clausewitz for Every Season', *American Interest*, July/August 2007, 33.
- ⁸³ Clausewitz, *On War*, 207.
- ⁸⁴ Colin S. Gray, *Modern Strategy* (Oxford: Oxford University Press, 1999), 17.
- ⁸⁵ Basil H. Liddell Hart, *Strategy: The Indirect Approach* (London: Faber and Faber, 1967), 335.
- ⁸⁶ Hew Strachan, 'Strategy or Alibi? Obama, McChrystal and the Operational Level of War', *Survival* 52:5, 2010, 158.
- ⁸⁷ Hew Strachan, 'The Lost Meaning of Strategy', *Survival* 47: 3, Autumn 2005, 52.
- ⁸⁸ Clausewitz, *On War*, 86.
- ⁸⁹ For other studies that have made use of Clausewitz's perspective of the relationship between 'means' and 'will', see Mark Clodfelter, 'Aiming to Break Will: America's World War II Bombing of German Morale and its Ramifications', *Journal of Strategic Studies* 33:3, 2010; Niall Ferguson, 'Prisoner Taking and Prisoner Killing in the Age of Total War: Towards a Political Economy of Military Defeat', *War in History* 11:2, 2004; Michael Howard, 'When are Wars Decisive?', *Survival* 41:1, 1999.
- ⁹⁰ This understanding of strategy appears to apply also to nuclear wars and limited 'small' wars. See Fennell, 'In Search of the "X" Factor'.
- ⁹¹ Michael Howard, 'When are Wars Decisive?', *Survival*, Vol. 41, No. 1 1999, 128.
- ⁹² Strachan, 'The Lost Meaning of Strategy', 49.
- ⁹³ Marshal, *Men Against Fire*, 190.
- ⁹⁴ Strachan, 'The Lost Meaning of Strategy', 36-40.

⁹⁵ Marshall, *Men Against Fire*, 184.

⁹⁶ Strachan, 'The Lost Meaning of Strategy', 47.

⁹⁷ Carl Von Clausewitz, *On War* (London: Everyman Library, 1993). First published in 1832.

⁹⁸ See for example, Colin M. Fleming, 'New or Old Wars? Debating a Clausewitzian Future', *Journal of Strategic Studies* 32:2, 2009; Bart Shuurman, 'Clausewitz and the "New Wars" Scholars', *Parameters*, Spring 2010.

⁹⁹ Strachan, 'The Lost Meaning of Strategy', 46.

¹⁰⁰ Strachan, 'Strategy or Alibi?' 157-182.

¹⁰¹ Clausewitz, *On War*, 698.